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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/366,850 08/04/99 FALSTER

R 98-0410(2489

000321 MM91/0409
SENNIGER POWERS LEAVITT AND ROEDEL
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS MO 63102

EXAMINER

MINTEL, W

ART UNIT	PAPER NUMBER
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2811

DATE MAILED:

04/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/366850

Applicant(s)

Falster

Examiner

William Mintel

Group Art Unit

2811

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-34 is/are pending in the application.
- Of the above claim(s) 23-34 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-22 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 4, 5, 7, 8, 9, 10
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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1. The disclosure is objected to because of the following informalities: The specification contains grammatic or other errors. Examples are below. To be fully responsive to this action, Applicant must make a bona fide attempt to correct any other errors. Page 2, line 7, "result", should be "results". In the claims, claim 1, lines 7-8, "the first region", lacks antecedent basis.

Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

3. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Temple (1983 IEEE).

5. In re claim 1, lines 1-8, the abstract, lines 1-4, column 1, page 782, discloses a narrow region of lower carrier lifetime perpendicular to the current flow. In re claim 1, lines 9-14, Fig. 5 shows the lifetime profile as having a central peak. Claims 2-3 are rejected as above since Temple does not disclose intentional carbon doping. In re claims 4, 5, 8-11 Fig. 5 shows a concentration peak at about 100 microns. The remaining claims are rejected as above.

6. Cited for an ion implanted platinum dose for lifetime control is Pike, Jr. Cited for polishing are Mitani and Wijaranakula. Cited for a 20 micron depth is Inoue. Cited for a 300 micron depth in Fig. 3 is Satoh. Cited for twin nucleation center peaks is Falster (406). Cited for a peak density are Zimmermann and Falster (675). Cited for carbon are Imura, Ogino (316),

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Huber (133) and Huber (358). The remaining references of record are characterized as merely of background interest.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. Mintel whose telephone number is (703) 308-4916. The examiner can normally be reached on M-Th from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas, can be reached on (703) 308-2772. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Mintel/nt

3-28-01

William Mintel

William Mintel
Primary Examiner
Art Unit 2811